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Childhood victimization and lifetime revictimization

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Abstract

Objective—To examine the fundamental hypothesis that childhood victimization leads to increased vulnerability for subsequent (re)victimization in adolescence and adulthood and, if so, whether there are differences in rates of experiencing traumas and victimizations by gender, race/ethnicity, and type of childhood abuse and/or neglect.

Methods—Using a prospective cohort design, participants are individuals with documented cases of childhood physical and sexual abuse and neglect from the years 1967 through 1971 and a matched control group. Both groups were interviewed in-person (mean age 39.5 years) in 2000–2002 using a new instrument to assess lifetime trauma and victimization history.

Results—Abused and neglected individuals reported a higher number of traumas and victimization experiences than controls and all types of childhood victimization (physical abuse, sexual abuse, and neglect) were associated with increased risk for lifetime revictimization. Significant group (abuse/neglect versus control) by gender and group by race/ethnicity interactions were found. Childhood victimization increased risk for physical and sexual assault/abuse, kidnapping/stalking, and having a family friend murdered or commit suicide, but not for general traumas, witnessing trauma, or crime victimization.

Conclusions—These findings provide strong support for the need for early intervention with abused and neglected children and their families to prevent subsequent exposure to traumas and victimization experiences.

Introduction

There has been increasing interest in the phenomenon of revictimization, or the notion that individuals who experience victimization in childhood are at increased risk for subsequent victimization at some point in their lives. Most of this work has focused on victims of sexual abuse (e.g., Cloitre, Tardiff, Marzuk, Leon, & Portera, 1996; Coid, Petruckevitch, Feder, Chung, Richardson, & Moorey, 2001; Maker, Kemmelmeir, & Peterson, 2001; Merrill, Newell, Thomsen, Gold, Milner, Koss, & Rosswork, 1999; Messman & Long, 1996; Sappington, Pharr, Tunstall, & Rickert, 1997; Schaaf & McCanne, 1998). According to Arata (2002), about one-third of child sexual abuse victims reported experiencing repeated victimization and sexual abuse victims had a two to three times greater risk of adult revictimization than women without a history of child sexual abuse.

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Between 1986 and 2002, there were at least 25 published studies on revictimization utilizing college student and community samples representing over 25,000 participants. Other studies have described revictimization in specialized (psychiatric inpatients and outpatients, incest group members, incest victims with dissociative disorders, AIDS/HIV clients, child sexual abuse survivors, prisoner, and female Navy recruits) or convenience samples (Irwin, 1999; Merrill et al., 1999; Messman-Moore & Long, 2002). On the other hand, at least two papers reported that victims of child sexual abuse were not at increased risk of revictimization as adults (Briere & Runtz, 1987; Mandoki & Burkhart, 1989). Relatively few studies have examined whether victims of childhood physical abuse are at risk for revictimization (Cloitre et al., 1996; Coid et al., 2001; Desai, Arias, Thompson, & Basile, 2002; Schaaf & McCanne, 1998). Even fewer have focused on childhood neglect.

Most studies have utilized cross-sectional designs, although some follow-up studies exist. For example, Faller (1991) followed sexually abused girls and boys (initial ages 2–16 years old) who had been identified by child protection agencies and referred for diagnostic and treatment services and found that 22% had been re-referred during the three years after the initial contact. Gidycz, Coble, Latham, & Layman (1993) reported that early sexual victimization and prior maladjustment (anxiety and depression) were risk factors for adult victimization experiences in college women followed from the beginning to the end of the semester. West, Williams, & Siegel (2000) studied 113 Black women ages 11–31 with documented histories of childhood sexual abuse and found that 30% of the women reported being revictimized in the 17 years following the initial event. Far fewer follow-up studies have described the subsequent victimization of physically abused or neglected children, even for relatively short time periods (Fryer & Miyoshi, 1994; Levy, Markovic, Chaudry, Ahart, & Torres, 1995).

Studies describing similarities or differences in revictimization risk by gender or race/ethnicity are also rare (Desai et al., 2002), yet there is reason to expect that rates and patterns of revictimization may vary. Some writers (Carmen, Ricker, & Mills, 1984; Jaffe, Wolfe, Wilson, & Zak, 1986; Widom, 1989b) have suggested that abused females are prone to become attached to men who victimize them in the process, whereas abused males are thought to externalize and victimize others. However, since males and females are not distributed equally across different types of abuse and neglect (i.e., more females are sexually abused), gender differences in response to maltreatment may be a function of the type of maltreatment, rather than gender.

Findings from research on combat and hurricane stressors suggest that exposure to similar stressors may have a different impact on African-Americans compared to White Americans (Green, Grace, Lindy, & Leonard, 1990; Kulka, Schlenger, Fairbank, Hough, Jordan, Marmar, & Weiss, 1990; Lonigan, Shannon, Finch, Daugherty, & Taylor, 1991; Norris, 1992). Wyatt (1991, 1992) reported that African-American women are less likely than White women to disclose abuse incidents and that this nondisclosure may be associated with an increased vulnerability to revictimization, as a lasting consequence of sexual abuse. In a study of female college students (Urquiza & Goodlin-Jones, 1994), among those with a history of childhood sexual abuse, African-American women appeared to be at greatest risk for revictimization, compared to the Whites and Latinas. However, Norris (1992) has cautioned that any possible differential responses to trauma may be a function of a number of factors, including exposure to more severe traumatic events, the buffering effect of higher socioeconomic status for Whites, and the effects of prejudice, hostility, and neglect to heighten the effects of trauma for African-Americans.

In sum, most of the literature on revictimization has been cross-sectional in design, relies almost exclusively on retrospective self-reports of childhood victimization, focuses on sexual abuse and sexual assault, and includes primarily females. Thus, there are a number of gaps in knowledge. Since both victimization and revictimization experiences have typically been

assessed concurrently (cross-sectional designs), it is unknown whether revictimization rates for childhood sexual abuse victims followed prospectively into adulthood will be higher than non-victims from similar backgrounds. There is a need for information about the extent to which victims of childhood physical abuse and neglect are also at risk for subsequent revictimization. Relatively little is known about the potential revictimization of abused and neglected males and, hence, little is known about potential gender differences in rates of revictimization. Since most of the existing literature has focused on samples of White non-Hispanic individuals, we know relatively little about risk of revictimization in non-White or Hispanic samples and about potential differences in revictimization rates by race or ethnicity.

Purpose

This paper is the first report of a prospective and long-term assessment of the relationship between childhood victimization and lifetime revictimization, using substantiated cases of childhood physical and sexual abuse and neglect from the years 1967 through 1971 and a comparison group matched on the basis of age, sex, race/ethnicity, and approximate family social class at the time. This paper seeks to test the overall hypothesis that childhood victimization contributes to increased vulnerability for subsequent (re)victimization in adolescence and adulthood, by comparing the extent to which victims of childhood abuse and neglect are at greater risk for subsequent victimization compared to non-abused and non-neglected peers. We expect differences in the extent of subsequent victimization experiences by gender, race/ethnicity, and type of childhood abuse or neglect. Specifically, we ask six basic questions:

1. Are abused and neglected children at greater risk for later (re)victimization than matched controls?
2. Are there differences in risk of revictimization for abused and neglected children by gender?
3. Are there differences in risk of revictimization for abused and neglected children of different ethnic backgrounds?
4. Do rates of revictimization vary by type of child abuse or neglect?
5. Compared to controls, does the pattern of risk of (re)victimization for abused and neglected children change over the life course?
6. Is the risk of revictimization for victims of childhood abuse and neglect broad, encompassing multiple forms of trauma, or relatively specific, affecting only certain types of traumas or victimization experiences?

Method

Sample and procedures

The data used here are from a large research project based on a prospective cohort design study in which abused and/or neglected children were matched with non-abused and non-neglected children and followed prospectively into young adulthood. Cases were drawn from the records of county juvenile and adult criminal courts in a metropolitan area in the Midwest during the years 1967 through 1971. The rationale for identifying the abused and neglected group was that their cases were serious enough to come to the attention of the authorities. Only court-substantiated cases of child abuse and neglect were included. Abuse and neglect cases were restricted to those in which the children were 11 years of age or less at the time of the abuse or neglect incident. Excluded from the sample were court cases that represented: (1) adoption of the child as an infant; (2) "involuntary" neglect only -- usually resulting from the temporary institutionalization of the legal guardian; (3) placement only; or (4) failure to pay child support.

Physical abuse cases included injuries such as bruises, welts, burns, abrasions, lacerations, wounds, cuts, bone and skull fractures, and other evidence of physical injury. *Sexual abuse* charges varied from relatively non-specific charges of “assault and battery with intent to gratify sexual desires” to more specific charges of “fondling or touching in an obscene manner,” rape, sodomy, incest, and so forth. *Neglect* cases reflected a judgment that the parents’ deficiencies in childcare were beyond those found acceptable by community and professional standards at the time. These cases represented extreme failure to provide adequate food, clothing, shelter, and medical attention to children. Although the cases for most of the children in this sample involved only one type of abuse or neglect, cases involving approximately 10% of the abused and neglected group were more than one type. We refer to these individuals as having experienced multiple forms of child abuse and neglect.

A comparison group of children who did not have documented cases of abuse and/or neglect was established, with matching on the basis of sex, age, race, and approximate family socioeconomic status during the time period under study (1967 through 1971). Matching for social class was important because it is theoretically plausible that any relationship between child abuse or neglect and later outcomes is confounded or explained by social class differences. This is particularly true for assessing lifetime trauma and victimization histories, since rates of trauma and victimization experiences vary by demographic characteristics (e.g., Rennison & Rand, 2003). It is difficult to match exactly for social class because higher income families could live in lower social class neighborhoods and vice versa. The matching procedure used here is based on a broad definition of social class that includes neighborhoods in which children were reared and schools they attended. Similar procedures, with neighborhood school matches, have been used in studies of people with schizophrenia (Watt, 1972) to match approximately for social class.

Children who were under school age at the time of the abuse and/or neglect were matched with children of the same sex, race, date of birth (+/- 1 week), and hospital of birth through the use of county birth record information. For children of school age, records of more than 100 elementary schools for the same time period were used to find matches with children of the same sex, race, date of birth (+/- 6 months), class in elementary school during the years 1967 through 1971, and approximate home address. Overall, there were matches for 74% of the abused and neglected children.

The cohort design involves the assumption that the major difference between the abused and neglected and comparison group is in the abuse or neglect experience. Since it is not possible to randomly assign subjects to groups, the assumption of equivalency for the groups is an approximation. Official records were checked and any proposed comparison group child who had an official record of abuse or neglect in their childhood ($n = 11$) was eliminated and a replacement child was substituted. The number of individuals in the control group who were actually abused, but not reported, is unknown. The control group may also differ from the abused and neglected individuals on other variables associated with abuse or neglect. [Further details of the study design and subject selection criteria are available in Widom (1989a).]

Of the original sample of 1,575, 1,307 subjects (83%) were located and 1,196 interviewed (76%) during 1989–1995. Of the people not interviewed, 43 were deceased (prior to interview), 8 were incapable of being interviewed, 268 were not found, and 60 refused to participate. There were no significant differences between the follow-up sample ($N = 1,196$) and the original sample ($N = 1,575$) in terms of demographic characteristics (male, White, poverty in childhood census tract, or current age) or group status (abuse/neglect versus comparison group).

Of the 1,196 individuals interviewed, 93% ($N = 1,117$) were located and 896 (75%) were interviewed again during 2000–2002. Of the people not interviewed, 37 were deceased, 4 were

incapable of being interviewed, 79 were not found, and 180 refused to participate. Comparison of the present sample (N = 896) to the earlier interview sample from 1989–1995 (N = 1,196) indicated no significant differences in terms of percent White, male, abused and/or neglected, poverty in childhood census tract, or mean current age.

Data for the present analysis is based on 892 individuals, since the data for four individuals was not complete. The sample includes 79 cases of physical abuse, 68 of sexual abuse, 406 cases of neglect and 396 matched controls. (These numbers do not add up to 892 because some participants experienced multiple types of victimization.) The mean age for the current sample was 39.5 (SD = 3.51, range 30–47). Approximately half the sample was female (51.0%) and about two-thirds White (60.8%). Only 27.7% of the sample had any college and 31.3% had less than a high school education. The median occupational level (Hollingshead, 1975) for the group was semi-skilled workers; only 11.3% were in the professions. Thus, the sample is skewed toward the lower end of the socio-economic spectrum.

Respondents were interviewed in person both times, usually in their homes, or, if the respondent preferred, another place appropriate for the interview. The interviewers were blind to the purpose of the study, to the inclusion of an abused and/or neglected group, and to the participants' group membership. Similarly, the subjects were blind to the purpose of the study. Subjects were told that they had been selected to participate as part of a large group of individuals who grew up in the late 1960s and early 1970s. Institutional Review Board approval was obtained for the procedures involved in this study and subjects who participated signed a consent form acknowledging that they understood the conditions of their participation and that they were participating voluntarily. For those individuals with limited reading ability, the consent form was read to the person and, if necessary, explained verbally.

Lifetime Trauma and Victimization History Measure

The Lifetime Trauma and Victimization History (LTVH) (Widom, Dutton, Czaja, & DuMont, 2005), a new 30-item instrument, was used to elicit a comprehensive lifetime trauma and victimization history in the context of a structured in-person interview. Developed with a matrix format for ease of administration and scoring, the LTVH assesses stressors independent of symptoms (Green, 1991). Questions refer to “serious events that may have happened to you during your lifetime” and cover seven categories of traumatic and victimization experiences: general traumas (items 1–6), physical assault/abuse (items 7–12), sexual assault/abuse (items 13–15), family/friend murdered or suicide (items 16 and 18), witnessed trauma to someone else (items 17, 19–21), crime victimization (items 8–10, 22–27), and kidnapped or stalked (items 28–29). Copies of the instrument are available from the authors.

For each of the items, follow-up questions are asked, including the age at which each event (first) occurred, permitting the tracing of temporal relationships of events over the life course. Respondents are also asked the number of times it happened (frequency); the perpetrator's relationship (if applicable); and the age it last happened (recency). An option of age ranges in years (0–11 = childhood; 12–17 = adolescence; and 18 and older = adulthood) was provided to assist individuals unable to identify a specific age at which the event occurred. The LTVH instrument permits the person to indicate whether one event has elements of multiple categories of trauma or victimization experiences, so that each type of trauma or victimization would be counted separately. For example, the same event might involve watching someone die (“witness trauma” category) in a car crash (“general trauma”) during a tornado (“general trauma”).

The LTVH was designed to be easy to comprehend (understandable by persons with 6th grade reading ability), since previous work with this sample indicated low levels of intellectual performance, education, and reading ability (Perez & Widom, 1994). Items with potentially

ambiguous terms (e.g., unwanted sexual activity) were defined as part of the question itself (i.e., “By unwanted sexual activity, we mean vaginal, oral, or anal intercourse, or has anyone inserted an object or their fingers in your anus or vagina?”).

Because of the extreme sensitivity of the instrument and its potential to have an emotional impact on respondents, the instrument was developed for use as an in-person interview with a trained interviewer. In this way, if the respondent became upset during the course of the interview, the interviewer could be responsive, pausing or stopping the interview, if appropriate. All participants were given a referral card with information on 24-hour emergency hotline services around the country and/or “800” telephone numbers of appropriate and accessible community agencies.

The interviewers were provided with 3 full days of instruction on administering the interview protocol and with feedback on their performance during numerous practice administrations. At the end of the training period, interviewers were required to complete an interview that was observed by members of the research staff.

The time required to complete the LTVH varied depending on the number of experiences reported by participants. Ninety percent of those who reported few traumas (0–2) completed the LTVH in 20 minutes or less as did half of those who reported 3–10 traumas. Individuals who required 40 minutes or over 60 minutes to finish the LTVH averaged 13 and 37 traumas, respectively. The LTVH demonstrates good predictive, criterion-related, and convergent validity and a high level of agreement between earlier and current reports of certain types of traumas (Widom et al., 2005).

Data analysis

Categorical variables were tested for significance using the Pearson chi-square statistic. Odds ratios (and 95% confidence intervals [CIs]) are reported for logistic regressions using dichotomous dependent variables. Group differences in means were tested with ANOVA.

Because of lack of homogeneity of variances across groups, pairwise comparisons were made using Tamhane’s T2 test (Tamhane, 1977). The number of subjects varied slightly in each analysis due to missing data. Statistical significance was set at 0.05 and SPSS version 10.1.0 was used.

Results

Are abused and neglected children at greater risk for later (re)victimization than matched controls?

By age 40, almost all of the participants in the study ($n = 882$, 98.9%) reported having experienced at least one trauma or victimization experience in their lifetime and this percent did not differ between abused and neglected individuals and controls (99.0% and 98.7%, respectively; $\chi^2 = .13$, $p = .71$). However, the number of traumas or victimization experiences reported by participants differed significantly, with abused and neglected individuals reporting a higher total number of traumas ($M = 15.03$, $SE = .50$) than matched controls ($M = 11.09$, $SE = .42$) [$F(1, 890) = 34.09$, $p < .001$]. There was also a significant difference in the number of unique traumatic or victimization experiences (that is, not counting the different types of traumas or victimizations that might have been part of one episode): individuals with histories of abuse and neglect reported a mean of 12.33 ($SE = .39$), whereas controls reported a mean of 9.52 ($SE = .34$) [$F(1, 890) = 28.09$, $p < .001$].

Table 1 presents the prevalence of lifetime traumas and victimization experiences for the entire sample and for abused and neglected individuals and matched controls, separately. Two major

points are worth noting. First, the results show relatively high rates of traumatic events and victimization experiences for the sample as a whole. Second, a higher percent of abused and neglected individuals reported experiencing 16 of the different types of traumas or victimization experiences assessed on the LTVH compared to controls, with odds ratios ranging from a low of 1.34 (having a family or friend murdered) to highs of 3.22 (seen another person sexually attacked) and 3.56 (physically abused as a child). These differences were primarily accounted for by interpersonal traumas and victimization experiences. For the other 14 types of traumas and victimization experiences, the prevalence in abused and neglected individuals and matched controls did not differ significantly.

Are there differences in risk of revictimization for abused and neglected children by gender?

Table 2 presents the lifetime prevalence of these traumas and victimization experiences for males and females separately. We report odds ratios for abused and neglected individuals compared to matched controls within each gender and whether there was a significant group (abuse/neglect versus control) by gender interaction. Among men, abused and neglected individuals were less likely to report human-made disasters than controls, but more likely to report other experiences (items #4, 7, 10, 11, 12, 13, 21, and 28). Among women, abused and neglected individuals were more likely to report 16 of the traumas and victimization experiences than controls (items #2, 5, 7–15, 20–22, 29, 30).

There were six significant group by gender interactions. In four of the six significant interactions [serious accident (#5), seen another person physically harmed (#20), property damaged (#22), and other (#30)], there was a significant effect for abused and neglected women in comparison to control women, but no similar effect for abused and neglected men, compared to control men. Interestingly, for the event “coerced into unwanted sex” (#13), the effect of group (abuse and neglect versus control) was significant for both genders, but significantly stronger for men. The final significant interaction revealed a cross-over interaction in which control men reported a higher prevalence of human-made disasters compared to abused and neglected men, whereas the opposite was true for women (abused and neglected women reported higher prevalence than control women).

Are there differences in risk of revictimization for abused and neglected children of different ethnic backgrounds?

Table 3 presents the prevalence of LTVH experiences for non-Whites and Hispanics and White, non-Hispanics, separately. We report odds ratios for abused and neglected individuals and matched controls within each ethnic group and whether there was a significant group (abuse/neglect versus control) by race/ethnicity interactions. Among non-Whites and Hispanics, abused and neglected individuals were more likely to report being physically harmed (#7), physically harmed as a child (#11), physically abused as a child (#12), coerced into unwanted sex (#13), and kidnapped (#28) than matched controls, but less likely to report exposure to dangerous chemicals (#6). Among White, non-Hispanic participants, abused and neglected individuals were more likely to report having experienced 16 of the traumas and victimization experiences than controls: having a serious accident (#5), being physically harmed (#7), threatened with a weapon (#8), threatened face-to-face (#9), assaulted with a weapon (#10), physically harmed as a child (#11), physically abused as a child (#12), coerced into unwanted sex (#13), attempted forced sex (#14), family/friend murdered (#16), seen murder or serious injury (#17), family/friend committed suicide (#18), seen another person physically harmed (#20), seen another person sexually attacked (#21), something stolen with force (#23), and being stalked (#29).

All or most of the traumas and victimization experiences reported for which child abuse and neglect was associated with an increased risk, there were no differences in risk of

revictimization by ethnicity (see Table 3). However, there were six significant group (abuse/neglect vs. control) by ethnicity interactions: exposure to dangerous chemicals (#6), threatened with a weapon (#8), assaulted with a weapon (#10), attempted forced sex (#14), seen murder or serious injury (#17), and seen another person physically harmed (#20). In most of these interactions, White non-Hispanic abused and neglected individuals were more likely to report having the experience, compared to White non-Hispanic controls, whereas among non-Whites and Hispanics, there was no difference between abused and neglected participants and controls. In the one remaining significant group by ethnicity interaction (threatened with a weapon, #8), abused and neglected non-Whites and Hispanics reported higher rates of traumas and victimization experiences, compared to controls, but White, non-Hispanic abused and neglected participants did not report differences from controls.

Do rates of revictimization vary by type of child abuse and/or neglect?

We compared the mean number of lifetime traumas and victimization experiences reported by individuals in the sample who experienced different types of childhood maltreatment (physical abuse only, sexual abuse only, neglect only, and multiple types of abuse and/or neglect) and controls. The overall ANOVA results were significant [$F(4, 887) = 9.50, p < .001$]. Based on pairwise comparisons to the control group ($M = 11.09, SE = 0.42$), the neglect only group ($M = 14.56, SE = 0.59$) and those who experienced multiple forms of childhood abuse and neglect ($M = 16.8, SE = 1.4$) reported significantly higher numbers of lifetime traumas and victimization experiences ($p < .001$ and $p < .01$, respectively). Although the sexual abuse only ($M = 16.8, SE = 2.01$) and physical abuse only ($M = 14.89, SE = 1.44$) groups had a high number of traumas and victimization experiences, they were only marginally different from the control group (and not different from the other groups), when controlling for the familywise error rate in multiple comparisons ($p = .07$ and $p = .14$, respectively).

Table 4 shows the lifetime prevalence of LTVH experiences among the four types of childhood abuse and neglect. There were significant differences among the groups on four types of traumas and victimization experiences [physically harmed (#7), physically harmed as a child (#11), physically abused as a child (#12), coerced into unwanted sex (#13), and attempted forced sex, (#14).] Overall, individuals with more than one type of childhood abuse and neglect ("Multiple") had the highest likelihood of reporting these traumas and victimization experiences (items 7, 11, 12, and 13). For five other LTVH experiences, the abuse and neglect groups did not differ from each other (#4, 5, 10, 21, and 28).

Compared to controls, does the pattern of risk of revictimization for abused and neglected children change over the life course?

Table 5 shows the likelihood of having experienced any of the LTVH experiences during childhood, adolescence, and adulthood for the abused and neglected group and controls separately. It should be noted that one event for individuals with documented cases of childhood abuse or neglect (representing the index event or documented case) is excluded from this analysis for childhood. These results reveal substantial differences in the reporting of experiences of any traumas and/or victimizations during childhood for the abuse and neglect and control groups. However, by adolescence and adulthood, abused and neglected individuals and matched controls did not differ in whether they had experienced any of these traumas or victimizations. On the other hand, the groups (abuse and neglect versus control) differed in the number of events reported during childhood (mean \pm standard error) [abuse/neglect, $M = 3.06 \pm .19$; control = $1.98 \pm .15$; $F(1, 890) = 18.27, p < .001$] and adulthood [abuse/neglect, $M = 8.50 \pm .30$; control = $6.88 \pm .26$; $F(1, 890) = 15.92, p < .001$], but not adolescence [abuse/neglect, $M = 2.51 \pm .15$; control = $2.22 \pm .15$, $F(1, 890) = 1.90, p = .17$].

Is the increased risk of revictimization for victims of childhood abuse and neglect broad, encompassing multiple types, or relatively specific, affecting only certain types of traumas or victimization experiences?

To examine whether the increase in risk of revictimization is broad or relatively specific, we report our results for the abused and neglected individuals and matched controls across the seven categories of traumas and victimization experiences. Our findings show that the increase in risk of revictimization was not across-the-board, encompassing all types of traumas and victimization experiences, but rather the increased risk was associated with only certain types of traumas and victimization experiences. Specifically, looking at the left hand side of Table 6, it is clear that the groups (abuse/neglect versus controls) did not differ in lifetime prevalence rates for three types of traumas and victimization experiences (general traumas, witnessed trauma, and crime victimization). However, for the other four categories of traumas and victimization experiences, individuals with documented histories of abuse and neglect reported significantly higher lifetime rates of interpersonal traumas than controls: physical assault and abuse (OR = 2.52, CI = 1.68–3.79, $p < .001$), sexual assault and abuse (OR = 2.28, CI = 1.72–3.01, $p < .001$), kidnapped/stalked (OR = 1.64, CI = 1.21–2.23, $p < .001$), and family/friend murdered or suicide (OR = 1.37, CI = 1.05–1.78, $p < .05$).

Table 6 also shows the lifetime prevalence for the seven broad categories of trauma and victimization for the specific types of abuse or neglect compared to controls, based on bivariate comparisons. Each of the specific types of abuse and neglect (physical abuse, sexual abuse, neglect, and multiple types of abuse/neglect) was associated with increased risk for sexual assault/abuse and, with one exception (sexual abuse), these same individual types were associated with increased risk for physical assault/abuse. It should be noted that individuals with documented histories of multiple forms of abuse and neglect reported the highest prevalence of physical assault/abuse (100%) and of sexual assault/abuse (66%). It should also be noted that individuals with documented histories of neglect were at increased risk for two additional forms of traumas and victimization experiences (kidnapped/stalked and family/friend murder/suicide).

Discussion

Using a prospective cohort design in which a group of physically and sexually abused and neglected children and matched controls were followed up into adulthood (approximate age 40) and interviewed, these results provide strong support for the fundamental hypothesis that childhood victimization leads to increased risk for lifetime revictimization. That is, across a number of types of traumas and victimization experiences, abused and neglected children are at increased risk of revictimization, compared to matched controls. The present findings indicate that the phenomenon of revictimization extends to children who experienced physical abuse and neglect, in addition to those who experienced sexual abuse. While the literature does not often attend to the risk of revictimization for neglected children, these findings suggest that their risks are substantial. Children who experienced multiple forms of abuse or neglect were also at heightened risk of subsequent traumas and victimization experiences, often at rates higher than the other maltreatment groups.

Our findings show that the increase in risk of revictimization for victims of childhood abuse and neglect does not extend to all of the categories of traumas or victimization experiences assessed here. Rather, these results indicate that the increase in risk is confined to what might be broadly described as “interpersonal violence”—physical assault/abuse, sexual assault/abuse, kidnapping and/or stalking, and having a family/friend murdered or commit suicide. Although these cohorts of individuals who grew up in the 1960s and early 1970s in the Midwest reported high rates of witnessing a traumatic event or experiencing some form of general trauma or crime victimization, we were surprised by the finding that individuals with documented

histories of child abuse and neglect did not differ from those in the sample without such histories in reporting exposure to general traumas, crime victimizations, or witnessing traumatic events. We can only speculate on the meaning of these findings, but one possibility is that growing up in relatively disadvantaged communities is associated with a greater risk of general traumas and crime victimization for all community members and not confined to families with childhood abuse or neglect.

The current findings show that there is considerable revictimization for males and females and non-Whites and Hispanics as well as White, non-Hispanics, but that there are also differences in risk of revictimization by gender and ethnicity. Despite the focus of the past literature on females, these findings reveal that men are victims, too, and that the image of males as perpetrators and females as victims may be more complex. The present results indicate that abused and neglected White, non-Hispanics reported higher rates of traumas and victimization experiences compared to White, non-Hispanic controls, whereas there were fewer differences among non-White and Hispanic abused and neglected individuals and controls. On the other hand, it should be noted that the overall lifetime prevalence rates of traumas and victimization experiences for non-Whites and Hispanics were higher than for White, non-Hispanics in general. The relative lack of differences between individuals with and without documented histories of abuse and/or neglect in reporting of traumas and victimization experiences among the non-Whites and Hispanics may in part be explained by differences in neighborhood of origin or characteristics of neighborhoods lived in throughout their lives. For example, Wooley (1993) has suggested that situational factors may influence revictimization rates through residence in impoverished or dangerous neighborhoods. Since non-Whites and Hispanics in general live in more disadvantaged neighborhoods compared to White, non-Hispanics (Jargowsky, 1996; Massey & Denton, 1987; Wilson, 1980), it is possible that living in poor and disadvantaged communities increased risk for victimization and trauma among the controls in this sample, and thus, minimized group (abuse/neglect versus control) differences. Although beyond the scope of the present paper, we will examine this issue in future work.

Interestingly, we found the largest difference between the groups in reports of traumas and victimizations (prevalence and extent) in childhood, even though that analysis controlled for the documented case of childhood physical or sexual abuse or neglect that brought these children to the attention of the court. We did not find group (abuse/neglect versus control) differences in the prevalence and extent of traumas or victimization experiences in adolescence. We also did not find group differences in the prevalence of these traumas and victimization experiences in young adulthood, although abused and neglected individuals reported a larger number of traumas in adulthood than controls. Nonetheless, by adulthood, it should be noted that almost everyone in the sample reported having at least one of these types of trauma or victimization experience.

Despite its numerous strengths, several limitations should be acknowledged. First, child abuse and neglect cases in this study were identified through official records from more than 30 years ago and may not be generalizable to unreported cases of abuse and neglect. Second, these cases represent children whose cases were processed through the courts and may not be generalizable to unreported cases of abuse and neglect. Third, cases processed through the courts were skewed toward the lower end of the socio-economic spectrum. In addition, because of the matching procedure, the controls in this study are also predominantly from lower socio-economic strata. Thus, these findings do not apply to cases of childhood maltreatment among middle and upper class respondents.

Nonetheless, these results once again reinforce the need for intervention and prevention efforts with abused and neglected children. Although intervening earlier in a child's life is generally better and more effective, these findings suggest that interventions aimed early in childhood

may also be the optimal point of intervention to prevent further victimization in the lives of abused and neglected children.

The present results show dramatically the extent of traumas and victimization experiences suffered by abused and neglected children throughout their lives as well as considerable trauma and victimization in the lives of the matched controls. While there is evidence that some of these individuals appear “resilient” in the face of these traumas and victimization experiences (DuMont, Widom, & Czaja, 2007; McGloin & Widom, 2001), the mechanisms which place these children on a path toward revictimization are not known and warrant attention, so that targeted interventions may be developed to prevent further trauma and victimization experiences.

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Table 1
Lifetime Prevalence of Trauma and Victimization Experiences (in percent)

Event	Description	Overall	Abuse/Neglect	Control	Odds Ratio (95% CI)
1	Natural disaster	26.1	28.4	23.3	1.30 (0.96–1.77)
2	Human made disaster	63.6	63.6	63.5	1.00 (0.76–1.32)
3	Direct combat experience	5.0	5.2	4.8	1.09 (0.60–2.00) *
4	Lived in war zone	5.3	6.8	3.3	2.16 (1.12–4.15) **
5	Serious accident	28.9	33.2	23.5	1.61 (1.20–2.17) **
6	Exposed to dangerous chemicals	20.0	19.3	20.8	0.91 (0.66–1.27) ***
7	Physically harmed	68.6	75.9	59.5	2.14 (1.61–2.85) **
8	Threatened with weapon	50.0	53.9	45.1	1.43 (1.09–1.86) **
9	Threatened face-to-face	54.6	58.6	49.6	1.43 (1.10–1.87) **
10	Assaulted with weapon	30.8	37.2	22.8	2.01 (1.49–2.71) ***
11	Physically harmed as child	43.8	52.3	33.2	2.21 (1.68–2.91) ***
12	Physically abused as child	26.1	36.0	13.7	3.56 (2.53–5.00) ***
13	Coerced into unwanted sex	28.0	36.2	17.7	2.64 (1.92–3.62) ***
14	Attempted forced sex	16.4	19.1	12.9	1.59 (1.10–2.31) **
15	Private parts touched	9.4	11.7	6.6	1.88 (1.16–3.04) **
16	Family/friend murdered	35.7	38.6	31.9	1.34 (1.02–1.78) *
17	Seen murder or serious injury	32.0	33.6	29.9	1.19 (0.89–1.58)
18	Family/friend committed suicide	21.6	22.5	20.5	1.13 (0.82–1.56)
19	Seen dead body	40.2	41.6	38.5	1.14 (0.87–1.50)
20	Seen another person physically harmed	46.5	48.1	44.6	1.15 (0.88–1.52) ***
21	Seen another person sexually attacked	5.9	8.8	2.8	3.22 (1.64–6.34) ***
22	Property damaged	37.6	39.0	35.7	1.15 (0.88–1.52)
23	Something stolen with force (mugging)	13.8	16.1	10.9	1.57 (1.06–2.34) *
24	Attempt to steal by force	8.0	7.8	8.1	0.97 (0.59–1.57)
25	Break-in (not present)	42.8	42.5	43.3	0.97 (0.74–1.26)
26	Break-in (present)	11.4	11.5	11.4	1.01 (0.67–1.53)
27	Something stolen without force	31.7	33.8	29.1	1.24 (0.93–1.66) **
28	Kidnapped	7.8	10.1	5.1	2.10 (1.23–3.59) **
29	Stalked	23.1	25.6	20.0	1.37 (1.00–1.89) *
30	Other dangerous situation	36.0	36.2	35.7	1.02 (0.78–1.35)

Note: CI = confidence interval;

* p ≤ .05;

** p ≤ .01;

*** p ≤ .001

Table 2
Sex Differences in Lifetime Prevalence of Trauma and Victimization Experiences by Group

Event	Men		Women		Group × Sex Interaction (p-value)
	A/N	Cont	A/N	Cont	
1	27.9	25.2	28.8	21.2	1.50 (0.97-2.32)
2	61.8	70.8	65.2	56.0	1.47 (1.01-2.15) *
3	9.0	7.4	1.9	2.1	0.91 (0.24-3.44)
4	11.6	5.4	2.7	1.0	2.60 (0.53-12.66)
5	38.2	33.7	28.8	13.0	2.72 (1.65-4.47) ***
6	28.8	27.7	11.0	13.5	0.79 (0.45-1.40)
7	82.0	72.3	70.5	46.1	2.79 (1.89-4.11) ***
8	63.9	57.4	45.1	32.1	1.73 (1.18-2.55) ***
9	62.2	59.4	55.3	39.4	1.91 (1.31-2.78) ***
10	46.4	30.7	29.2	14.5	2.43 (1.50-3.92) ***
11	57.1	40.6	48.1	25.4	2.72 (1.82-4.08) ***
12	32.2	9.9	39.4	17.6	3.04 (1.95-4.74) ***
13	21.5	3.0	49.2	33.2	1.96 (1.33-2.87) ***
14	12.9	8.9	24.6	17.1	1.58 (0.99-2.53) *
15	6.0	3.5	16.7	9.8	1.83 (1.03-3.25) *
16	39.9	33.2	37.5	30.6	1.36 (0.92-2.02)
17	39.9	38.1	28.0	21.2	1.44 (0.93-2.24)
18	21.5	18.8	23.5	22.3	1.07 (0.69-1.67)
19	45.1	43.6	38.6	33.2	1.37 (0.86-1.87)
20	51.9	54.5	44.7	34.2	1.56 (1.06-2.28) *
21	7.7	2.5	9.1	3.1	3.12 (1.25-7.78) *
22	33.9	38.1	43.6	33.2	1.56 (1.06-2.29) *
23	20.6	14.4	12.1	7.3	1.76 (0.91-3.40)
24	11.2	11.4	4.9	4.7	1.06 (0.44-2.53)
25	40.8	42.6	43.9	44.0	1.00 (0.69-1.45)
26	8.6	10.4	14.0	12.4	1.15 (0.66-1.99)
27	29.2	24.8	37.9	33.7	1.20 (0.81-1.77)
28	7.3	1.5	12.5	8.8	1.48 (0.80-2.74)
29	13.7	14.4	36.0	25.9	1.61 (1.07-2.42) *
30	35.2	42.6	37.1	28.5	1.48 (0.99-2.21) *

Note: A/N = abuse/neglect; CONT = control; OR = odds ratio; CI = confidence interval;

* p≤.05;

** p≤.01;

*** p≤.001

Table 3
Lifetime Prevalence of Traumas and Victimization Experiences by Group and Ethnicity

Event	A/N	Non-Whites and Hispanics Cont	OR (96% CI)	A/N	White, Non-Hispanics Cont	OR (95% CI)	Group × Ethnicity Interaction (p-value)
1	23.5	20.98	1.16 (0.70-1.93)	31.6	24.9	1.40 (0.95-2.05)	.57
2	60.5	60.1	1.02 (0.66-1.56)	65.7	65.8	0.99 (0.69-1.42)	.94
3	8.8	6.3	1.37 (0.61-3.09)	3.0	3.8	0.79 (0.31-2.03)	.38
4	8.5	3.8	2.35 (0.91-6.12)	5.7	3.0	2.00 (0.81-4.89)**	.81
5	32.0	25.9	1.34 (0.85-2.14)	34.0	21.9	1.83 (1.24-2.71)**	.31
6	13.5	21.5	0.57 (0.33-0.99)*	23.2	20.3	1.19 (0.79-1.81)	.04
7	70.0	58.9	1.63 (1.05-2.53)*	79.8	59.9	2.64 (1.80-3.88)***	.11
8	50.5	50.6	1.00 (0.66-1.51)	56.2	41.4	1.82 (1.29-2.57)***	.03
9	57.0	48.1	1.43 (0.94-2.18)	59.6	50.6	1.44 (1.02-2.03)*	.98
10	38.0	29.7	1.45 (0.93-2.26)	36.7	18.1	2.62 (1.74-3.93)***	.05
11	47.5	31.0	2.01 (1.30-3.12)**	55.6	34.6	2.36 (1.66-3.36)***	.58
12	28.5	10.1	3.54 (1.94-6.45)***	41.1	16.0	3.65 (2.41-5.54)***	.93
13	30.5	19.0	1.87 (1.14-3.08)**	40.1	16.9	3.29 (2.18-4.97)***	.09
14	14.5	17.1	0.82 (0.47-1.46)	22.2	10.1	2.54 (1.53-4.19)***	.004
15	11.0	5.7	2.05 (0.91-4.58)	12.1	7.2	1.79 (0.98-3.27)**	.79
16	52.0	49.4	1.11 (0.73-1.69)	29.6	20.3	1.66 (1.11-2.48)**	.18
17	33.5	39.9	0.76 (0.49-1.17)	33.7	23.2	1.68 (1.14-2.47)**	.01
18	16.5	19.6	0.81 (0.47-1.39)	26.6	21.1	1.36 (0.90-2.03)	.14
19	42.5	39.2	1.14 (0.75-1.75)	41.1	38.0	1.14 (0.80-1.62)	.99
20	44.0	51.3	0.75 (0.49-1.14)	50.8	40.1	1.55 (1.10-2.18)**	.01
21	7.0	3.8	1.91 (0.72-5.08)	9.4	2.1	4.83 (1.83-12.69)***	.19
22	37.0	33.5	1.16 (0.75-1.80)	40.4	37.1	1.15 (0.81-1.63)**	.96
23	18.5	15.8	1.21 (0.69-2.11)	14.5	7.6	2.06 (1.15-3.68)**	.19
24	7.5	8.9	0.83 (0.39-1.78)	8.1	7.6	1.07 (0.57-2.02)	.62
25	37.0	43.7	0.76 (0.50-1.16)	46.1	43.0	1.13 (0.80-1.60)	.15
26	11.5	10.1	1.15 (0.59-2.27)	11.4	12.2	0.93 (0.55-1.57)	.62
27	31.0	27.2	1.20 (0.76-1.91)**	35.7	30.4	1.27 (0.88-1.83)	.85
28	11.5	3.2	3.98 (1.48-10.71)***	9.1	6.3	1.48 (0.77-2.85)*	.10
29	24.5	23.4	1.06 (0.65-1.73)	26.3	17.7	1.65 (1.08-2.52)*	.18
30	30.0	32.9	0.87 (0.56-1.37)	40.4	37.6	1.13 (0.79-1.60)	.38

A/N = abuse/neglect; CONT = Control; OR = odds ratio; CI = confidence interval;

* p≤.05;

** p≤.01;

*** p≤.001

Table 4
Lifetime Prevalence of Traumas and Victimization Experiences by Type of Childhood Abuse or Neglect (in percent)

Description	Physical only	Neglect only	Sexual only	Multiple	P
1 Natural disaster	21.6	28.3	32.7	30.0	.72
2 Human-made disaster	70.3	61.8	71.4	64.0	.47
3 Direct combat experience	2.7	5.5	4.1	6.0	.87
4 Lived in war zone	0.00	7.2	10.2	6.0	.87
5 Serious accident	45.9	31.3	34.7	36.0	.33
6 Exposed to dangerous chemicals	27.0	18.3	18.4	22.0	.60
7 Physically harmed	86.5	74.0	67.3	90.0	.02
8 Threatened with weapon	54.1	54.0	51.0	56.0	.97
9 Threatened face-to-face	64.9	57.9	57.1	60.0	.86
10 Assaulted with weapon	40.5	36.3	36.7	42.0	.85
11 Physically harmed as child	67.6	49.6	40.8	72.0	.003
12 Physically abused as child	51.4	29.9	42.9	62.0	.000
13 Coerced into unwanted sex	35.1	32.7	42.9	56.0	.01
14 Attempted forced sex	18.9	17.2	28.6	24.0	.22
15 Private parts touched	13.5	11.6	14.3	8.0	.78
16 Family/friend murdered	32.4	40.2	38.8	32.0	.60
17 Seen murder or serious injury	21.6	33.5	32.7	44.0	.20
18 Family/friend committed suicide	24.3	23.0	20.4	20.0	.94
19 Seen dead body	35.1	41.3	51.0	40.0	.48
20 Seen another person physically harmed	48.6	48.8	32.7	58.0	.09
21 Seen another person sexually attacked	10.8	8.0	4.1	14.0	.34
22 Property damaged	48.6	38.0	42.9	36.0	.55
23 Something stolen with force (mugging)	5.4	17.5	12.2	18.0	.28
24 Attempt to steal by force	8.1	8.0	8.2	6.0	.97
25 Break-in (not present)	45.9	40.2	59.2	40.0	.09
26 Break-in (present)	10.8	11.9	12.2	8.0	.87
27 Something stolen without force	37.8	32.1	36.7	40.0	.62
28 Kidnapped	16.2	8.3	18.4	10.0	.10
29 Stalked	21.6	24.7	36.7	24.0	.30
30 Other dangerous situation	37.8	36.6	34.7	34.0	.98

Note: p = p value; Fisher's test was used if a cell had less than 5 cases.

Table 5
Prevalence of Any Trauma or Victimization Experience by Group (Abuse/Neglect versus Control) by Time Period (Childhood, Adolescence, and Young Adulthood)

	Abuse/Neglect		Control		Chi Square	p
	%	n	%	n		
Childhood (0–11 years)	70.4	350	60.3	238	10.13	.001
Adolescence (12–17 years)	70.4	350	67.8	268	0.69	.41
Young Adulthood (18 years and older)	96.2	478	97.2	384	0.73	.39

Note: Index event (documented case of physical or sexual abuse) was excluded from these analyses. p = p value

Table 6

Lifetime Prevalence and Odds Ratios (95% CI) for Categories of Traumas and Victimization Experiences by Group (Child Abuse/Neglect versus Control) and Type of Abuse and/or Neglect

CATEGORY	CONT (395)		ABUSE/NEGLECT (497)		ANY PHYSICAL ABUSE (77)		ANY NEGLECT (404)		ANY SEXUAL ABUSE (67)		MULTIPLE TYPES OF ABUSE (50)	
	%	OR (95% CI)	%	OR (95% CI)	%	OR (95% CI)	%	OR (95% CI)	%	OR (95% CI)	%	OR (95% CI)
General Traumas	78.0		81.9	1.28 (.92-1.78)	84.4	1.53 (.79-2.96)	81.2	1.22 (.86-1.72)	86.6	1.82 (.87-3.82)	86.0	1.73 (.75-3.99)
Physical Assault/Abuse	81.5		91.8	2.52*** (1.68-3.79)	96.1	5.56*** (1.71-18.09)	92.1	2.64*** (1.70-4.10)	91.0	2.31 (.96-5.54)	100.0	11.11*** (1.51-81.77)
Sexual Assault/Abuse	28.6		47.7	2.28*** (1.72-3.01)	58.4	3.51*** (2.12-5.80)	45.0	2.05*** (1.53-2.74)	65.7	4.77*** (2.76-8.27)	66.0	4.84*** (2.59-9.05)
Kidnapped/Stalked	21.8		31.4	1.64*** (1.21-2.23)	29.9	1.53 (.89-2.64)	29.7	1.52* (1.01-2.09)	43.3	2.74*** (1.60-4.70)	32.0	1.69 (.89-3.21)
Family/Friend Murder/Suicide	44.		52.1	1.37* (1.05-1.78)	42.9	.94 (.58-1.54)	53.0	1.42* (1.07-1.87)	52.2	1.38 (.82-2.31)	44.0	.99 (.55-1.79)
Witnessed Trauma	66.3		70.2	1.20 (.90-1.59)	74.0	1.45 (.83-2.51)	69.6	1.16 (.86-1.56)	71.6	1.28 (.73-2.27)	72.0	1.31 (.68-2.51)
Crime Victimization	88.9		89.3	1.05 (.69-1.60)	92.2	1.48 (.61-3.61)	88.9	1.00 (.64-1.55)	91.0	1.27 (.52-3.12)	92.0	1.44 (.50-4.20)

Note: CONT = Control; OR = odds ratio; CI = confidence interval

* p < .05,

** p < .01,

*** p < .001

J An odds ratio cannot be computed when everyone (100%) in one group has the outcome of interest. However, an OR can be computed for a hypothesized outcome that is less extreme (that is, one case does not have the outcome). Using this logic and assuming that 98% of the "multiple" abuse group has experienced physical assault/abuse (the real value is 100%), the resulting OR (11.11) is highly significant. Thus, extrapolating to the current situation, where all cases of multiple abuse report having experienced physical assault/abuse, compared to 81.5% of the control group, the OR would be highly significant.